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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,029	08/27/2003	Philip D. Nguyen	2003-IP-010303U1	5135

7590 11/22/2005
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EXAMINER

FULLER, BRYAN A

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/649,029	NGUYEN ET AL.	
	Examiner	Art Unit	
	Bryan A. Fuller	3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/14/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to the applicant's amendment filed 9/16/2005. Claims 1 – 41 have been finally rejected.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 6 – 8, 10 – 11, 18, 23 – 25, 27 – 28, and 36 - 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Nguyen et al (6,209,643).

With respect to claims 1 and 18: Nguyen et al (6,209,643) teaches in column 9, lines 12 – 18 a method of controlling fines migration in a subterranean formation comprising the steps of: (a) placing a tackifying composition into the subterranean formation so as to form a coating on one or more particulates present in the subterranean formations wherein the one or more particulates were present in the subterranean formation prior to the placement of the tackifying composition therein; and, (b) placing an after-flush fluid into the subterranean formation.

With respect to claims 6 – 8, 10 – 11, 23 – 25, and 27 - 28: Nguyen et al (6,209,643) teaches in column 3, line 29 – column 12, line 24 the use of a polyamide as a tackifier and the use of a solvent in the tackifying composition. The reference also teaches the tackifier present in the amount in the range of 1% to 10% and that the tackifying composition has a viscosity less than about 100 cP.

With respect to claims 36 and 39: Nguyen et al (6,209,643) teaches in column 4, lines 15 – 30 a method herein the one or more particulates are selected from the group consisting of formation sand, proppant, and combinations thereof.

With respect to claims 37 and 40: Nguyen et al (6,209,643) teaches in column 3, line 29 – column 5, line 38 a method wherein the coating formed on the one or more particulates is a non-hardening coating.

With respect to claims 38 and 41: Nguyen et al (6,209,643) teaches in column 3, line 29 – column 5, line 38 a method wherein the coating covers 100% of the outer surface of the one or more particulates.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 – 5 and 19 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (6,209,643) in view of Bannister (4,681,165).

With respect to claims 2 – 5 and 19 – 22: Nguyen et al (6,209,643) teaches the features as claimed except for the use of an aqueous pre-flush fluid that comprises a specific surfactant. Bannister teaches in column 1, line 5 – column 2, line 23 the use of an aqueous pre-flush fluid that comprises a non-ionic surfactant. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made

to have modified Nguyen et al's (6,209,643) method by including an aqueous pre-flush fluid that comprises a non-ionic surfactant in view of the teachings of Bannister. The motivation for the combination of these two references is that the additional step and materials used in Bannister is advantageous in the sense that it provides aqueous chemical wash compositions having effective fluid loss control over an extended range of operating temperatures.

5. Claims 12 - 14 and 29 - 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (6,209,643) in view of Gilmour et al (6,534,449).

With respect to claims 12 - 14 and 29 - 31: Nguyen et al (6,209,643) teaches the features as claimed except for the after-flush fluid comprising water or a specific surfactant. Gilmour et al teaches in column 3, lines 16 - 48 the use of an aqueous after-flush fluid that comprises a non-ionic surfactant. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Nguyen et al's (6,209,643) method by including an aqueous after-flush fluid that comprises a non-ionic surfactant in view of the teachings of Gilmour et al. The motivation for the combination of these two references is that the materials used in Gilmour et al is advantageous in the sense that it provides aqueous chemical wash compositions having effective fluid loss control over an extended range of operating temperatures.

6. Claims 9, 16 - 17, 26, and 33 - 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (6,209,643) in view of Nguyen et al (5,960,878).

With respect to claims 15 and 32: Nguyen et al (6,209,643) teaches the features as claimed except for the method of injecting the after-flush fluid and the tackifying composition at a matrix flow rate. Additionally, Nguyen et al (6,209,643) does not teach the use of butyl bottom alcohol as the specific solvent. Nguyen et al (5,960,878) teaches in column 6, lines 3 – 38 the use of butyl bottom alcohol as a specific solvent for the tackifying composition. Nguyen et al (5,960,878) also teaches the method of injecting fluids into a subterranean formation at matrix flow rates. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Nguyen et al's (6,209,643) method by introducing the after-flush fluid and the tackifying composition into the subterranean formation at a matrix flow rate and the use of butyl bottom alcohol as the solvent in view of the teachings of Nguyen et al (5,960,878). The motivation for the combination of these references is that introducing fluids into subterranean formations at a matrix flow rate minimizes the possibility of additional fines released within the formation.

7. Claims 15 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (6,209,643) and Bannister as applied to claims 2 and 19 above, and further in view of Nguyen et al (5,960,878).

With respect to claims 15 and 32: Nguyen et al (6,209,643) and Bannister teach the features as claimed except for the method of injecting the pre-flush fluid at a matrix flow rate. Nguyen et al (5,960,878) teaches in column 6, lines 3 – 38 the method of injecting fluids into a subterranean formation at matrix flow rates. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made

to have modified the combination of Nguyen et al's (6,209,643) and Bannister's methods by introducing the pre-flush fluid into the subterranean formation at a matrix flow rate in view of the teachings of Nguyen et al (5,960,878). The motivation for the combination of these references is that introducing fluids into subterranean formations at a matrix flow rate minimizes the possibility of additional fines released within the formation.

Response to Arguments

8. Applicant's arguments with respect to claims 1 - 41 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan A. Fuller whose telephone number is (571) 272-8119. The examiner can normally be reached on M - Th 7:30 - 5:00 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian E. Glessner can be reached on (571) 272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Brian E. Glessner
Supervisory Patent Examiner
Art Unit 3676

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